

does not reach the margin, being confined to the 4th, 5th, 6th, 7th and 8th interstitial spaces, the colour being shortest on the 5th and longest on the three last; the posterior spot is confined to the same interstices, almost disappearing on the last; it is more transverse and not so much curved obliquely backwards and outwards as in *Symeii*.

[To be continued.]

XI.—Notes on the Indian species of *Lycium*.

By T. ANDERSON, Esq., M.D., Oude Contingent*.

IN October 1855, when passing through the Doab between the Ravee and Beas, I gathered a specimen of *Lycium Edgeworthii* of Dunal, a species founded on a plant sent to Dunal by Mr. Edgeworth, from near Sirhind. The plant in my herbarium is evidently the same as that which Dunal has described; but after most careful and repeated examination of a considerable number of specimens in my possession, I am convinced that Dunal's *L. Edgeworthii* is only a variety of his *L. mediterraneum*, the *L. europæum* of Linnæus. In order that his species *L. mediterraneum* and *L. Edgeworthii* may be distinguished, he has refined their specific characters so much, that they appear to be the descriptions rather of trivial varieties than of permanent and well-marked species. The differences between the specific characters of the species consist of a line or two in the length of the calyx—a mark of no importance, of minute differences in the length of the pedicels and peduncles, and of inconstant characters taken from the existence of minute hairs at the insertion of the filaments in *Lycium Edgeworthii*. In my specimens I found several flowers entirely glabrous. In *Lycium europæum* the character is “filamentis basi puberulis.” Characters are also taken from the branches and spines, but the latter, in both species, are of all shapes and sizes, from a simple thorn $\frac{1}{4}$ of an inch long to a spine 3 inches long, bearing leaves and flowers. Dunal supposes the colour of the corolla of *L. Edgeworthii* to be yellow; in my specimens it is pale rose-coloured, as in *L. europæum*.

Dunal has proposed to change the name of the Linnæan *L. europæum* to *L. mediterraneum*, a change by no means applicable to a plant widely diffused in India. I therefore retain the Linnæan name, and propose the following specific character, which seems applicable to both the Indian and Western plants.

L. EUROPEUM, fruticosum, cortice albido, ramis spinescentibus, spinis teretibus, foliis 2–5 ad basin spinarum fasciculatis, obovato-

* From the Journal of the Asiatic Society of Bengal, No. I. 1857.

oblongis vel oblongo-cuneatis, pedicellis calyce longioribus, interdum geminis, plerumque unifloris, calyce breviter 5-dentato glabro vel puberulo, corolla calyce duplo longiore anguste infundibuliformi, staminibus inclusis.—*L. europæum*, Linn. et auct. ; Royle, Ill. ; *L. mediterraneum*, Dun. in DC. Prod. xiii. 523 (cum omnibus variet.) ; *L. Edgeworthii*, Dun. in DC. Prod. xiii. 525 ; *L. indicum*, Wight, Icones, t. 1403.

Hab. in India prope Delhi, *Royle* ; Guzerat, *Wight* ; Sirhind, *Edgeworth* ; Panjab ad Umritsir, *T. Anderson*.

Folia glabra vel punctulata $\frac{1}{2}$ –1 unciam longa. Spinæ axillares nudæ vel foliosæ $\frac{1}{4}$ –1 unciam longæ. Flores gemini vel sæpius solitarii e fasciculis foliorum. Calyx 5-dentatus cyathiformis 1–2 lineas longus, glaber. Corolla calyce longior infundibuliformis 4–6 lineas longa, roseo-alba. Filamenta filiformia inclusa inæqualia, uno cæteris brevior. Antheræ parvæ ovatæ, basi bifidæ. Stylus cylindricus, staminibus longior. Stigma orbiculare, capitatum. Pollen in aqua globosum. Ovarium ovatum. Bacca globosa parva.

In India, special care is required to guard against the undue increase of species, since in this country, besides difficulties arising from want of books of reference, natural causes make the determination of species more difficult than in Europe. One of the most powerful of these is the sudden and complete change of climate in many parts of the Peninsula of India, arising from the periodical recurrence of the rainy season, which often alters the flora from that of an arid plain to one consisting entirely of a large number of tropical annuals. This climatic change also temporarily affects the appearance or "habit" of the perennial plants, causing a wonderful luxuriance of growth and alteration of the foliage. To these changes *Lycium europæum* is fully exposed. It is a native of dry sandy plains, where, before the rains, it is stunted in all its parts ; but when the air and soil become charged with moisture, an expansion of all its parts takes place, fully accounting for the multiform characters of its leaves, and the diversity in the length of the spines, &c.

XII.—On the Development of *Purpura*. By WM. B. CARPENTER, M.D., F.R.S., F.G.S., F.L.S.

To the Editors of the *Annals of Natural History*.

July 20, 1857.

GENTLEMEN,

My friend Dr. Dyster of Tenby (whose competency as an accurate and well-informed microscopist is well known to every naturalist who has visited that place) having applied himself